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Prof. James Lederberg
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Alcalá de Henares, 15/January/04

Dear Prof Lederberg:

I write to enquire about your experiences in overcoming resistance to new ideas in science. As you may be aware, some important discoveries in science were initially resisted by peers who did not appreciate their significance. In other instances, referees and editors rejected articles that heralded new ideas or singular or unexpected discoveries.

In previous studies, I identified examples of influential and/or highly cited papers that were initially rejected by one or more scientific journals. In some instances, the work reported in such papers eventually earned the Nobel prize for their authors. In collaboration with Dr. Brian Martin (from University of Wollongong, Australia), I have also collected testimonies and insights from other scientists, especially those who challenge dominant paradigms. Citations to previous work are given below (these works are available in my webpage).

I am interested in your recollections of **obstacles** (if any) that you might have encountered from editors, referees, peers or others to the work you consider most important. I am also interested in cases of *"delayed recognition"*, namely contributions not fully appreciated by the scientific community at the moment of their announcement or publication.

If you are willing to assist, please respond to the **3 questions** at the attached questionnaire. If I anticipate using any part of your response in a publication, I will send you a draft for comment so that you can check the wording and context. I hope that the results of this study will assist scientists in the future to more effectively deal with resistance to important new work.

You are most welcome to forward a copy of this letter to others who might be interested or to send me names of others to contact. I also welcome any suggestions you may have about this project. Please feel free to contact me if I can be of assistance.

Sincerely



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<http://www.uah.es/otrosweb/jmc>

REFERENCES

(Articles available in <http://www.uah.es/otrosweb/jmc> [publications])

Campanario, J.M. (1995) Commentary: On influential books and journal articles initially rejected because negative referees' evaluations. *Science Communication*, 16, 304-325.

Campanario, J.M. 1996. Have referees rejected some of the most-cited papers of all times? *Journal of the American Society for Information Sciences*, 47, 302-310.

Campanario, J.M. (2002) Rejecting Nobel class papers and resisting Nobel class discoveries (in revision)

QUESTIONNAIRE

(3 Questions)

(Developed in cooperation with Dr. Brian Martin, <http://www.uow.edu.au/arts/sts/bmartin>)

For your convenience, I would suggest to answer by e-mail

(juan.campanario@uah.es) or in a separate sheet

(please, don't forget to include your name)

Name: _____

Question 1 Have you ever encountered resistance on part of the editors, referees, peers or others to work that you consider your most significant?

(If yes, you please elaborate briefly. Additional data on papers, journals, causes of resistance, personal anecdotes, etc., will be of tremendous help.)

Question 2 What was the initial response from the scientific community to your more important contributions?

Question 3 What methods have you used to overcome resistance to your work? I would appreciate any account that you can send. To jog your memory, you may find it useful to look through the following list of diverse methods for overcoming resistance to new scientific ideas, but please feel free to mention methods not listed here:

3.1 Funding. Innovators often have a hard time obtaining funding from conventional sources. Sometimes they may have funding withdrawn. Here are some methods that have been used to obtain funds.

- A.1 Obtain funding from innovative agencies.
- B.1 Obtain funding from agencies not worried about the innovative aspects (such as the military).
- C.1 Obtain private funding.
- D.1 Fund the research through personal resources.
- E.1. Apply political pressure to obtain funding.
- F.1 Use conventional funding but disguise the nature of the research.

3.2. Publishing and other ways of promoting ideas. Innovators often have a difficult time getting their work published. Submissions may be rejected or subject to significant delay. Major revisions may be required. Even when published, the work may be neglected. Here are some methods to promote new ideas.

- A.2 Challenge the editor's rejection.
- B.2 Use friends or patrons to help get published.
- C.2 Submit to other journals.
- D.2 Publish in many different journals and conferences.
- E.2 Keep publishing after the initial breakthrough.
- F.2 Seek wider audiences beyond the key discipline.
- G.2 Set up a journal or a special section in an established journal; attend alternative conferences.
- H.2 Send out preprints (to sidestep journal rejections).
- I.2 Publish books (as an alternative to journal publication).
- J.2 Publish directly on the web.
- K.2 Publish paid advertisements.
- L.2 Seek coverage in the mass media.

3.3. Surviving attack. Some innovators come under attack beyond normal criticism of their ideas. For example, their professional integrity may be challenged, malicious rumours may be spread about them, they may be threatened, their submissions or grant applications may be rejected without proper review, their grants may be removed, and their jobs may be put in jeopardy. Here are some methods to survive such attacks.

- A.3 Continue without being distracted or discouraged.
- B.3 Seek support from others who have come under attack.
- C.3 Expose the existence of attacks, especially their unscientific aspects.
- D.3 Expose the bias or vested interests of the attackers.
- E.3 Seek support from colleagues or a professional association.
- F.3 Counterattack using similar methods.
- G.3 Take legal action.
- H.3 Join with others who have come under attack.